

Module V

Cognitive, social, communication, language and cognitive development and early intervention (II)



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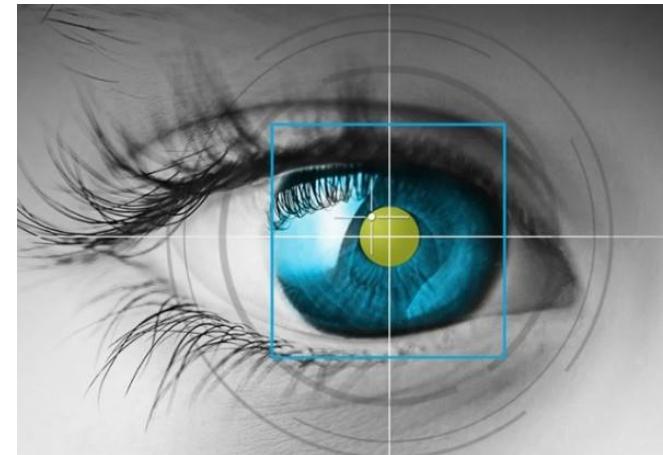
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Technological advances have allowed developmental psychology to study development in all areas using increasingly precise techniques and procedures. This has led to advancing the ages of acquisition of some of the Piagetian constructs.



PRECURSORS OF THEORY OF MIND

- At the end of the **sensorimotor period**, children begin the **development of representation**.
- However, its genesis begins many months earlier.
- From 8 to 12 months, triangular relationships are established between the **child, adults and objects**.



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TRIANGULAR REACTIONS

From **eight to twelve months**, relationships between the child, **adults and objects** are established



TRIANGULAR REACTIONS

From **eight to twelve months**, relationships between the child, **adults and objects** are established



Communicative actions include **patterns of joint attention**, before, during or after the execution of a gesture, the child seeks eye **contact with the adult** (Rivière. 1997)

TRIANGULAR REACTIONS



Gestural communication. Gestures can be used either to make **requests of objects to others (protoimperative)** or to **show situations (protodeclarative)**. The difference between the two types of gestures lies in the fact that the latter consider the person as the object of interaction and not only as a means of achievement. Therefore, pre-linguistic intentional communication seems to indicate that there is some kind of understanding of the mental processes of others. **These early communicative behaviours would be the initial manifestations of theory of mind (Wellman. 1993).**



TRIANGULAR REACTIONS



Protodeclarative gestures are understood as more complex communicative behaviours than protoimperative gestures, as they require metarepresentational abilities. The behaviours of mentally sharing a situation with another involve being aware that the other has a mind that can share that situation with one's own mind, which involves second-order representations or representations of the mental experiences of others and therefore a more complex cognitive understanding (Gómez, Sarriá, and Tamarit. 1993).

INTERSUBJECTIVITY



Trevarthen (1982, 1989) differentiated between **primary intersubjectivity**, face-to-face reactions with nurturing figures in which infants manifest different expressions and develop from **two to four or five months of age**, and **secondary intersubjectivity**, the child's deliberate motivation to share interests and experiences with other people and are manifested around the first year of life.

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PRIMARY INTERSUBJECTIVITY

Face-to-face reactions with parenting figures in which infants show different expressions and develop from two to four or five months of age.



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SECONDARY INTERSUBJECTIVITY

Deliberate motivation of the child to share interests and experiences with others and manifests itself around the first year of life.



Theory of mind in infancy, social perception, birth to 8 months

Imitation

Smile and dyadic vocalisation

Joint attention (eye tracking, pointing, social referencing)

Discriminate animate vs. inanimate objects.

Discriminate goals and movements

Mental and sensitive states

Astington & Dack (2008) p. 6



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Theory of mind in infancy, mental states from 18 months to 3 years of age

Difference between the mental and the real

Initiates Symbolic Play

Is aware of desires, emotions and intentions

Desire based on reasoning

Is aware of perception and knowledge

Use the states of mind

Astington & Dack (2008) p. 7



SYMBOLIC PLAY

- **Symbolic play** is considered to be a **precursor to theory of mind**, and its acquisition begins **at the end of the second year**, at the same time as the development of other representational skills begins.
- Thus the link between the development of **prodeclaratives**, **symbolic play** and **theory of mind** is most likely the ability to have **meta-representations** (Leslie, 1987; Leslie and Happé, 1989; Gómez, Sarriá and Tamarit, 1993).



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SYMBOLIC PLAY



Symbolic play begins in **early infancy**, from **eighteen to thirty-six months**. At around eighteen months, children are able to understand significantly better what is asked for with a symbolic gesture than with the use of a miniature object referent. However, they will show confusion between the symbol and the referent.

MANIFESTATIONS OF SEMIOTIC FUNCTION AT THE END OF THE SENSORIMOTOR PERIOD

The main manifestations of **semiotic function** that have been identified at the end of the sensorimotor period are: **deferred imitation, symbolic play, drawing and language** (Delval. 1996).



MANIFESTATIONS OF SEMIOTIC FUNCTION AT THE END OF THE SENSORIMOTOR PERIOD



Drawing



Symbolic play



Deferred imitation

Representation requires some degree of self-reflection on the relationship between the symbol (signifier) and the represented object (signified) Carlson and Zelazo (2008)



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Language is perhaps the most elaborate form of representation in terms of complexity and the one that enables the greatest interpersonal and cognitive development. **Vygotsky (1985) understood language as a privileged vehicle of cognition.**



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THERAPEUTIC IMPLICATIONS

Sáiz. M.C.. & Román. J.M. (2011). *Estiment. Estimulación en la Primera Infancia*. Madrid: CEPE.

UNIT 18. ABILITY TO DEVELOP PROTO-IMPERATIVE BEHAVIOURS

Objective: to facilitate the development of proto-imperative behaviours.

Task: when the child is hungry or thirsty, or wants a toy, the adult will not give it to the child when he/she senses the child's desire, but will encourage the child to develop asking behaviours, developing the communicative intention towards the adult.

Materials: bottle, biscuits, objects that are motivating for the child.

Generalisation activities: take advantage of all the usual situations in which the child wants something. It will not be given until the child develops some type of communicative behaviour towards the adult. When the child does so, social reinforcement will be given.





THERAPEUTIC IMPLICATIONS

Sáiz. M.C.. & Román. J.M. (2011). *Estiment. Estimulación en la Primera Infancia*. Madrid: CEPE.

UNIT 19. ABILITY TO DEVELOP PROTODECLARATIVE BEHAVIOURS

Objective: to facilitate the development of prodeclarative behaviours.

Task: facilitate situations in which the child has to share with the adult a situation that he/she wants to communicate. For example, place a spinning carousel near him/her that emits combined flashes of light. The child can point to show the adult how the carousel spins and projects different colours on the ceiling. The adult will show interest in the phenomenon and will also verbalise the process, accompanying the communicative interaction, always reinforcing the child's behaviour at the end by saying "how nice, I really liked it, when you see something else nice, show it to me, OK?"

Materials: motivating toys (carousels of light, dolls that emit light and sound, toys that fit together, etc...).

Generalisation activities: take advantage of all the usual situations in which the child wants to show something to the adult in order to share it with him/her. When he/she does so, he/she will always be socially reinforced for it.

THERAPEUTIC IMPLICATIONS



Sáiz. M.C.. & Román. J.M. (2011). *Estiment. Estimulación en la Primera Infancia*. Madrid: CEPE.

UNIT 20. DEVELOPING SECONDARY INTER-SUBJECTIVITY SKILLS

Objective: to facilitate the development of secondary intersubjectivity behaviours.

Task: facilitate situations of triadic behaviours.

Materials: small-scale toys that are motivating for the child.

Generalisation activities: take advantage of the play situations that the child develops autonomously in order to use language to regulate the steps of planned execution, as well as the elaboration of the complexity of the game.



THERAPEUTIC IMPLICATIONS

Marchesi. A. (1987). *El desarrollo cognitivo y lingüístico de los niños sordos*. Madrid: Alianza.



DEVELOPMENT OF THE DECENTRALISATION DIMENSION

Objective: to facilitate the dimension of decentration.

Task: enable the child to interact with toys (dolls and toys that help him/her to reproduce everyday contextual situations), modelling and shaping play situations by the adult.

Let the child initiate interactions; if necessary, model situational patterns of decentring through overt verbal language as a behaviour regulating agent's actions.

Materials: small-scale toys that are motivating for the child.

Generalisation activities: take advantage of the play situations that the child develops autonomously to use language to regulate the steps of planned execution, as well as the elaboration of the complexity of the game.



THERAPEUTIC IMPLICATIONS

Marchesi. A. (1987). *El desarrollo cognitivo y lingüístico de los niños sordos*. Madrid: Alianza.

DEVELOPMENT OF THE OBJECT SUBSTITUTION DIMENSION

Objective: to facilitate the dimension of object substitution.

Task: to facilitate the child's interaction with toys in order to initiate possible functional substitutions; to model the action by using in the substitution of objects, which may have some relation to the objects they substitute.

Enable the child to make non-functional substitutions; model the action by using objects in the substitution that are not similar to the objects they are substituting.

Materials: small-scale toys that are motivating for the child.

Generalisation activities: take advantage of the play situations that the child develops autonomously to use language to regulate the steps of planned execution, as well as the elaboration of the complexity of the game.



THERAPEUTIC IMPLICATIONS

Marchesi. A. (1987). *El desarrollo cognitivo y lingüístico de los niños sordos*. Madrid: Alianza.

DEVELOPMENT OF THE PLANNING DIMENSION

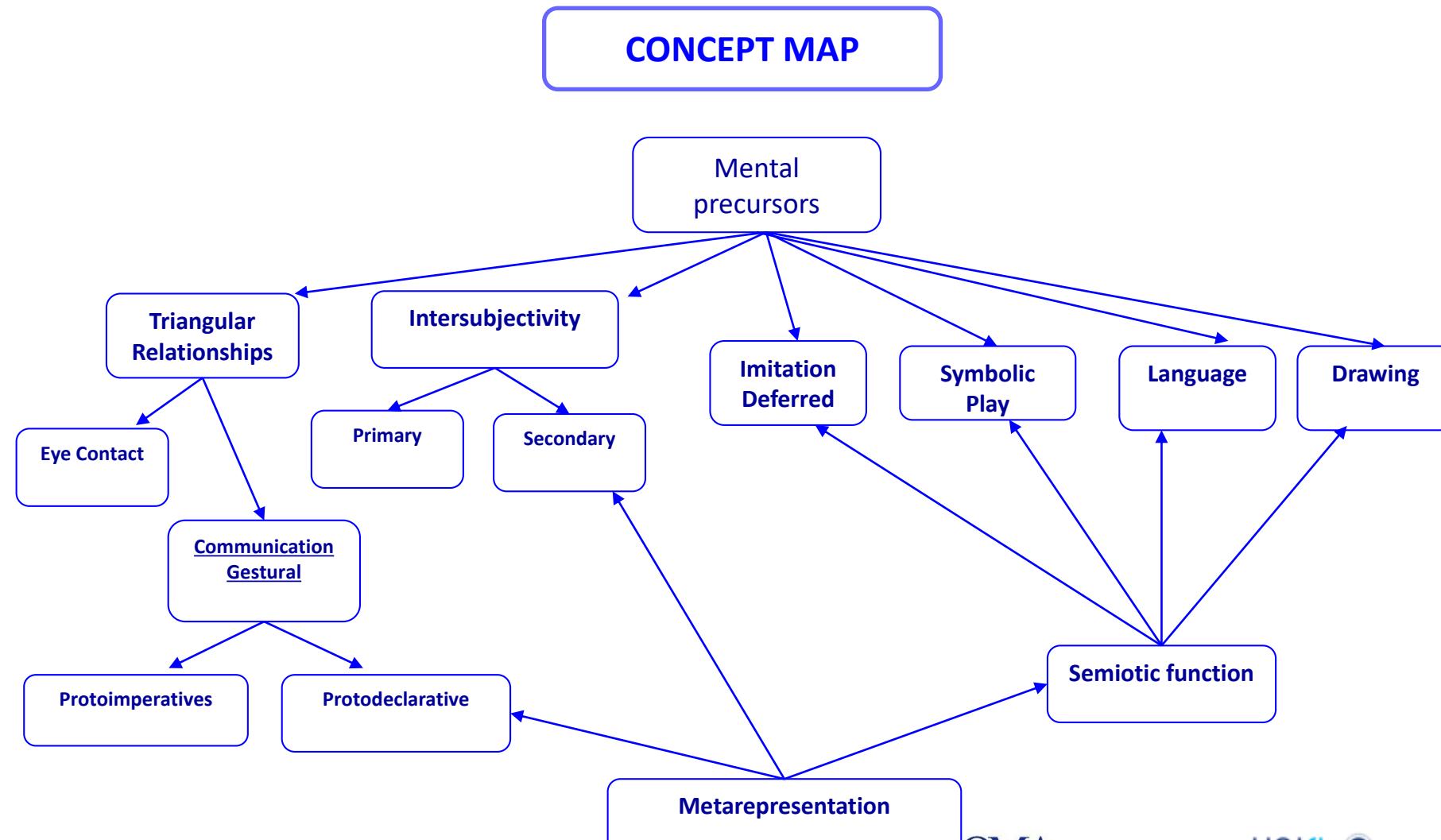
Objective: to facilitate the planning dimension.

Task: to model and shape situations that facilitate the elicitation of an intentionality towards play; to use language as a regulator of the actions that are carried out.

Materials: small-scale toys that are motivating for the child.

Generalisation activities: take advantage of the play situations that the child develops autonomously in order to use language to regulate the steps of planned execution, as well as the elaboration of the complexity of the game.

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